

RA
601
M67
2015
IGSL
UCB

Social Determinants of Health

Rising Food Insecurity in Los Angeles County



INSTITUTE OF GOVERNMENTAL
STUDIES LIBRARY
OCT 29 2015
UNIVERSITY OF CALIFORNIA

INSTITUTE OF GOVERNMENTAL
STUDIES LIBRARY
OCT 29 2015
UNIVERSITY OF CALIFORNIA

EXECUTIVE SUMMARY

This report describes the state of food insecurity in Los Angeles County and is the third report in a series from the Los Angeles County Department of Public Health addressing the social determinants of health.

Food insecurity is a large and growing concern in Los Angeles (LA) County. The 2011 Los Angeles County Health Survey (LACHS) found that more than half a million households living below 300% of the Federal Poverty Level (FPL)^a in the County reported not being able to afford sufficient food in the previous year. The problem is most severe among poorer households, with 41% of households living in poverty (below 100% FPL), experiencing some form of food insecurity, and 19% of households in poverty experiencing very low food security which is characterized by “disrupted eating patterns and reduced food intake.”

Since 2002, there was a relative increase of 40% in the prevalence of overall food insecurity, and a relative increase of 66% in the prevalence of very low food security for LA County households living below 300% FPL. These concerning upward trends are consistent with what has been occurring at the state and national levels.^{1,2} Following the economic downturn of 2008, the prevalence of food insecurity across the U.S. sharply increased and has not declined to pre-recession levels as of 2013.³

The LACHS results indicate that food insecurity increases as household income decreases. Additionally, there is a higher prevalence of food insecurity among African American adults, adults who are unemployed, those with less than a high school education, and those who were not U.S. citizens.

Food insecurity is a major public health issue that has reached crisis proportions in LA County. It can have significant negative impacts on health and well-being across the life span, including impairing growth and development among children, increasing risks for depression and other mental health conditions among adolescents, and contributing to malnutrition and worsened medical conditions in the elderly. Having access to nutritious, affordable, and quality food is essential to the well-being of individuals and the communities in which they live. Immediate and concerted action is needed to respond to this crisis and ensure that all people can fulfill the basic need for adequate nutrition.

INSTITUTE OF GOVERNMENTAL
STUDIES LIBRARY

OCT 29 2015

UNIVERSITY OF CALIFORNIA

a. The 2011 LACHS used the FPL threshold available at the time of interviewing, which was from the 2009 United States Census. The thresholds for a family of four (2 adults, 2 dependents) correspond to annual incomes of \$21,756 (100% FPL), \$43,512 (200% FPL), and \$65,268 (300% FPL).

INTRODUCTION

RA601
M67
2015
IGSL
UCB

The most important factors impacting population health are the social and economic environments in which people live, learn, work and play. We refer to these factors as the “social determinants of health.” This report, the third in a series from the Los Angeles County Department of Public Health addressing these root causes of poor health, describes the state of food insecurity in LA County. Following our previous releases, “How Social and Economic Factors Affect Health” and “Housing and Health in Los Angeles County,” we report the high burden of food insecurity among County households and its negative impacts.^{4,5}

Nationally, the prevalence of household food insecurity increased in the wake of the economic downturn of 2008 and years after the recession it has not regressed. In 2013, 14.3% of, or an estimated 17.5 million, U.S. households were food insecure. Furthermore, 5.6% of, or approximately 6.8 million, U.S. households experienced very low food security (see Food Security/Insecurity Terminology).³

Food Security/Insecurity Terminology

Since 1990, the American Institute of Nutrition has defined food security as, “Access by all people at all times to enough food for an active, healthy life.” Food security not only includes the availability of safe and nutritious food, but also the ability to “acquire acceptable foods in socially acceptable ways.”⁶

The United States Department of Agriculture (USDA) considers a household to be food insecure if it experiences low food security or very low food security.⁷ These are defined as:

- **Low food security**, formerly “food insecurity without hunger”: Reports of reduced quality, variety, or desirability of diet. Little or no indication of reduced food intake.
- **Very low food security**, formerly “food insecurity with hunger”: Reports of multiple indications of disrupted eating patterns and reduced food intake.

In addition to leading to hunger and malnutrition, food insecurity has been associated with poorer health status, increased odds of hospitalization among children, and increased prevalence of chronic disease among adults.^{8,9} Studies using national surveillance data found poorer academic performance and increased behavioral problems among children living in households with insufficient food.¹⁰ They also found a greater prevalence of symptoms of depression and suicidal thoughts among adolescents with insufficient food relative to their peers with adequate food.¹¹ Food insecurity, particularly among women, has been shown to be associated with increased levels of stress and depression.^{12,13} Pre-existing medical conditions among people with limited resources can also be exacerbated when patients forgo food for medicine, or medicine for food.¹⁴

A high prevalence of obesity paradoxically has been observed among populations with a higher prevalence of food insecurity, including those living in poverty.¹⁵⁻¹⁷ Research suggests that people living in or near poverty have fewer resources to spend on healthy, nutritious food and are more likely to consume processed food that is high in sugar and fat content.^{16,18} Whether food insecurity and obesity are causally associated or are only two independent consequences of poverty is yet unclear.

What is clear is that social and economic environments significantly impact people’s health and quality of life. In the absence of affordable, nutritious food, social inequities and health disparities are exacerbated. As part of the Department of Public Health’s commitment to achieving health equity among County residents, we present this report to prompt action on this critical public health issue.

METHODS

The findings in this report come from three cycles of the Los Angeles County Health Survey (LACHS) for which data on food insecurity are available: 2002, 2005, and 2011. The LACHS is a periodic, population-based, random-digit-dialed telephone survey of non-institutionalized residents of LA County. The 2002, 2005, and 2011 surveys each collected information on a random sample of approximately 8,000 adults.

In the 2002 and 2005 cycles, interviews were conducted through landlines. In the 2011 cycle, the LACHS began capturing respondents on cell phones in addition to landlines. The inclusion of cell phone participants is expected to improve representation in the sample of young adults, Latinos, African Americans, and people with lower incomes and lower educational levels.^{19,20} To maintain the representativeness of the data collected, a more complex weighting method was also employed in the 2011 survey, allowing for inclusion of more demographic factors.²¹ These methodological changes could result in slightly higher or lower estimates in the prevalence of some risk factors and health outcomes in the 2011 survey compared to what estimates would be if the survey had been conducted via landlines only. Details about the survey, including full methodology reports, can be found at www.publichealth.lacounty.gov/ha/hasurveyintro.htm.

In each LACHS cycle, respondents with incomes less than 300% of the Federal Poverty Level (FPL)^b were asked the following six-item set of questions to assess food insecurity:

1. In the last 12 months, did you or any other adults in your household ever have to cut the size of your meals or skip meals because there wasn't enough money for food?
2. If yes: How often did this happen?
(Responses: Almost every month; Some months but not every month; Only one or two months.)
3. In the last 12 months, did you ever eat less than you felt you should because there wasn't enough money to buy food?
4. In the last 12 months, were you ever hungry but didn't eat because you could not afford enough food?

Now I'm going to read you 2 statements that people have made about their food situation. For these statements, please tell me whether the statement was often, sometimes, or never true for you [or the other members of your household] in the last 12 months:

5. The food that was bought just didn't last, and we didn't have money to get more.
6. We couldn't afford to eat balanced meals.

If respondents gave affirmative responses to two to four of the six questions, their households were classified as having *low food security*. For those who gave affirmative responses to five or six of the questions, their households were classified as having *very low food security*. Both categories together make up the *food insecure* households. If respondents gave affirmative responses to zero or one question, their households were classified as food secure.²³

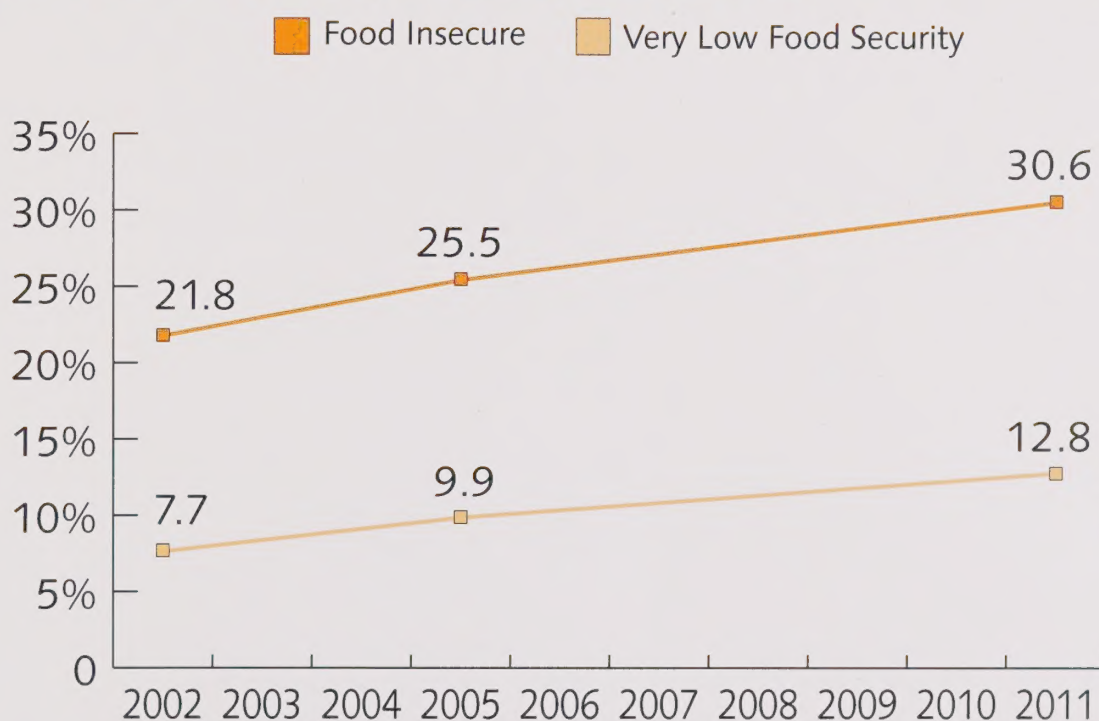
b. FPL is defined annually by the U.S. Census Bureau, and does not take into account the variation across the U.S in the cost of living. LA County is one of the most expensive communities in the nation, and it is estimated that if the FPL accounted for this, 27% of residents would have been living in poverty (i.e., 100% FPL) in 2011.²²

FINDINGS

The 2011 LACHS found that 30.6% of Los Angeles County households with incomes less than 300% FPL, or more than half a million (530,000) households, were food insecure in the previous year; the prevalence of very low food security was 12.8%, affecting approximately 221,000 households in the County.

There was a relative increase of 40.4% in overall food insecurity between 2002 and 2011, from 21.8% to 30.6%. Over the same period of time, the proportion of households reporting very low food security showed a relative increase of 66.2%, increasing from 7.7% to 12.8% (Figure 1).

Figure 1: Food Insecurity Trends among LA County Households with Incomes <300% FPL^{\$}, LACHS 2002-2011



^{\$} Federal Poverty Level (FPL) thresholds are based on the U.S. Census data at the time of interview.

Food Insecurity

Among Los Angeles County households with incomes less than 300% FPL:

- As household income increased, the prevalence of food insecurity decreased (Table 1, Figure 2). While food insecurity was consistently highest among households in poverty across years, the relative increases were much higher (nearly 50%) among households with incomes between 100-299% FPL compared to those in poverty for whom the relative increase was 10.6% (Table 1).
- The prevalence of food insecurity increased significantly among households with and without children. In 2011, food insecurity remained more prevalent among households with children (33.5%) compared to households without children (28.0%).
- Food insecurity varied dramatically across Service Planning Areas (SPAs), with the lowest prevalence reported in the West SPA (19.2%*) and the highest prevalence in the South Bay SPA (36.9%) in 2011. The South Bay SPA had the sharpest relative increase in prevalence from 2002 to 2011 (63.3%).

Table 1: Percent of LA County Households with Incomes <300% FPL^{\$} Experiencing Food Insecurity, LACHS 2002-2011

	2002		2005		2011		% Change 2002-2011
	Percent (%)	95% CI	Percent (%)	95% CI	Percent (%)	95% CI	
Households Overall	21.8	20.5 - 23.0	25.5	24.0 - 27.0	30.6	28.4 - 32.8	40.4
Federal Poverty Level ^{\$}							
0-99% FPL	36.9	34.3 - 39.5	41.5	38.6 - 44.5	40.8	36.9 - 44.7	10.6
100-199% FPL	19.2	17.2 - 21.2	23.0	20.6 - 25.4	28.7	25.3 - 32.1	49.5
200-299% FPL	10.2	8.5 - 11.9	10.2	8.0 - 12.3	15.2	11.8 - 18.6	49.0
Households with Children							
Yes	24.7	23.0 - 26.5	30.1	27.9 - 32.3	33.5	29.9 - 37.0	35.6
No	18.9	17.1 - 20.7	20.8	18.6 - 22.9	28.0	25.3 - 30.8	48.1
Service Planning Area							
Antelope Valley	22.4	17.2 - 27.6	25.7	21.6 - 29.7	27.8	17.0 - 38.6	24.1
San Fernando	20.5	17.7 - 23.4	24.4	20.8 - 28.0	30.0	25.1 - 34.9	46.3
San Gabriel	18.3	15.5 - 21.0	19.2	15.7 - 22.6	27.2	22.1 - 32.3	48.6
Metro	27.4	23.7 - 31.1	28.8	24.7 - 33.0	32.9	27.0 - 38.8	20.1
West	17.3	12.1 - 22.6	18.2	11.1 - 25.2	19.2*	8.9 - 29.4	11.0
South	24.1	20.4 - 27.8	33.1	28.8 - 37.4	29.9	24.5 - 35.3	24.1
East	20.1	16.9 - 23.3	26.1	22.2 - 30.0	30.5	24.6 - 36.5	51.7
South Bay	22.6	19.3 - 26.0	25.9	21.6 - 30.2	36.9	30.5 - 43.4	63.3

^{\$} Federal Poverty Level (FPL) thresholds are based on the U.S. Census data at the time of interview.

* The estimate is statistically unstable (relative standard error $\geq 23\%$) and therefore may not be appropriate to use for planning or policy purposes.

* The estimate is statistically unstable (relative standard error $\geq 23\%$) and therefore may not be appropriate to use for planning or policy purposes.

Very Low Food Security

Trends in very low food security mirrored the overall food insecurity trends. Among Los Angeles County households with incomes less than 300% FPL:

- As household income levels increased, the prevalence of very low food security decreased (Table 2, Figure 2). In 2011, nearly one in five households (19.2%) with incomes below the poverty threshold experienced very low food security, compared to 5.5% of households with incomes between 200-299% FPL. From 2002 to 2011, the prevalence of very low food security nearly doubled among households with incomes just above the poverty threshold (100-199% FPL).
- From 2002 to 2011, the prevalence of very low food security increased significantly for households with and without children.
- Very low food security varied dramatically across SPAs. In 2011, the highest prevalence was found in the South Bay SPA (16.2%). The South Bay SPA along with the San Gabriel, Metro, and East SPAs saw the sharpest relative increases in the prevalence of very low food security from 2002 to 2011.

Table 2: Percent of LA County Households with Incomes <300% FPL^{\$} Experiencing Very Low Food Security, LACHS 2002-2011

	2002		2005		2011		% Change 2002-2011
	Percent (%)	95% CI	Percent (%)	95% CI	Percent (%)	95% CI	
Households Overall	7.7	6.8 - 8.5	9.9	8.7 - 11.0	12.8	11.1 - 14.4	66.2
Federal Poverty Level^{\$}							
0-99% FPL	14.1	12.2 - 16.0	16.4	14.0 - 18.8	19.2	16.0 - 22.4	36.2
100-199% FPL	5.5	4.4 - 6.7	8.4	6.6 - 10.1	10.1	7.8 - 12.3	83.6
200-299% FPL	3.9	2.8 - 5.0	4.2	2.5 - 5.8	5.5	3.1 - 8.0	41.0
Households with Children							
Yes	7.5	6.4 - 8.5	10.5	8.9 - 12.2	13.2	10.6 - 15.8	76.0
No	8.0	6.7 - 9.3	9.1	7.5 - 10.7	12.6	10.5 - 14.8	57.5
Service Planning Area							
Antelope Valley	11.8	7.7 - 15.8	13.1	9.7 - 16.5	11.5*	4.4 - 18.7	-2.5
San Fernando	7.1	5.2 - 9.0	9.3	6.6 - 12.0	11.7	8.0 - 15.3	64.8
San Gabriel	6.7	4.8 - 8.5	5.8	3.6 - 8.1	12.8	8.9 - 16.6	91.0
Metro	7.6	5.3 - 9.9	11.0	7.9 - 14.1	13.8	9.3 - 18.4	81.6
West	6.1*	2.6 - 9.5	4.5*	0.5 - 8.5	6.4*	0.4 - 12.4	4.9
South	9.3	6.7 - 11.8	13.9	10.5 - 17.3	11.2	7.6 - 14.8	20.4
East	6.4	4.4 - 8.4	9.3	6.5 - 12.1	12.7	8.3 - 17.0	98.4
South Bay	9.0	6.7 - 11.4	11.8	8.2 - 15.3	16.2	10.7 - 21.8	80.0

^{\$} Federal Poverty Level (FPL) thresholds are based on the U.S. Census data at the time of interview.

*The estimate is statistically unstable (relative standard error ≥23%) and therefore may not be appropriate to use for planning or policy purposes.

Adult Demographics by Household Food Security Status

According to the 2011 LACHS, over 1.2 million adults live in the 530,000 food insecure households in Los Angeles County. Comparing characteristics of adults with household incomes less than 300% FPL living in food insecure households to those living in food secure households shows:

- A higher proportion of African Americans and a lower proportion of Asians were found among food insecure households compared to food secure households (Table 3).
- A higher proportion of adults living in food insecure households had lower levels of education compared to adults living in food secure households. The percentage of adults with less than a high school education was 44.0% among food insecure households compared to 32.6% of adults in food secure households.
- Nearly half (47.3%) of adults living in food insecure households reported employment but were still unable to afford adequate food.
- A higher percentage (22.9%) of adults living in food insecure households were unemployed compared to adults living in food secure households (16.3%).
- A higher proportion of adults who reported not being United States citizens were found among food insecure households.

Figure 2: Percent of LA County Households That Were Food Insecure, by Federal Poverty Level (FPL)^{\$}, LACHS 2011



^{\$} Based on U.S. Census Bureau 2009 Federal Poverty Level (FPL) thresholds which for a family of four (2 adults, 2 dependents) correspond to annual incomes of \$21,756 (100% FPL), \$43,512 (200% FPL), and \$65,268 (300% FPL).

Table 3: Demographic Characteristics of LA County Adults (18+ years old) with Household Incomes <300% FPL\$ by Household Food Security Status, LACHS 2011

	Living in Food Insecure Household			Living in Food Secure Household		
	Percent (%)	95% CI	Estimated #	Percent (%)	95% CI	Estimated #
Gender						
Male	43.6	39.5 - 47.8	533,000	46.9	44.4 - 49.5	1,404,000
Female	56.4	52.2 - 60.5	688,000	53.1	50.5 - 55.6	1,588,000
Age Group						
18-24	13.0	9.8 - 16.1	158,000	18.8	16.7 - 21.0	564,000
25-29	11.9	8.9 - 14.9	146,000	11.3	9.4 - 13.2	338,000
30-39	24.4	20.9 - 28.0	298,000	19.3	17.3 - 21.4	578,000
40-49	22.7	19.4 - 25.9	276,000	18.0	16.1 - 19.8	537,000
50-59	17.0	14.2 - 19.8	208,000	13.5	11.9 - 15.1	405,000
60-64	5.0	3.7 - 6.4	62,000	4.9	4.0 - 5.7	146,000
65 or over	6.0	4.4 - 7.5	73,000	14.2	12.7 - 15.6	424,000
Race/Ethnicity[‡]						
Latino	63.5	59.6 - 67.4	775,000	58.2	55.7 - 60.7	1,742,000
White	13.9	11.3 - 16.5	170,000	17.9	16.2 - 19.7	536,000
African American	12.2	9.5 - 14.9	149,000	7.8	6.6 - 8.9	233,000
Asian	9.0	6.4 - 11.5	109,000	15.5	13.4 - 17.6	465,000
Education						
Less than high school	44.0	39.9 - 48.0	534,000	32.6	30.2 - 35.0	968,000
High school	24.4	20.8 - 28.1	297,000	28.1	25.8 - 30.5	835,000
Some college or trade school	23.9	20.5 - 27.4	291,000	25.9	23.7 - 28.1	770,000
College or post graduate degree	7.6	6.0 - 9.3	93,000	13.4	11.9 - 14.8	397,000
Employment Status						
Employed	47.3	43.2 - 51.5	560,000	49.4	46.8 - 52.0	1,445,000
Unemployed	22.9	19.3 - 26.4	271,000	16.3	14.4 - 18.2	476,000
Not in labor force	29.8	26.2 - 33.4	352,000	34.3	32.0 - 36.7	1,004,000
Citizenship						
U.S.	57.6	53.4 - 61.7	684,000	66.4	63.8 - 68.9	1,950,000
Non U.S.	42.4	38.3 - 46.6	504,000	33.6	31.1 - 36.2	989,000
Country of Birth						
Foreign Born	60.8	56.9 - 64.7	742,000	57.2	54.8 - 59.6	1,702,000
U.S. Born	39.2	35.3 - 43.1	478,000	42.8	40.4 - 45.2	1,274,000

‡ Percentages do not sum to 100%. Data for Native Hawaiian and other Pacific Islander, American Indian/Alaska Native, and Other are not presented due to unstable estimates (relative standard error ≥23%) or suppressed for purposes of confidentiality (cell sizes less than 5).

\$ Based on U.S. Census Bureau 2009 Federal Poverty Level (FPL) thresholds which for a family of four (2 adults, 2 dependents) correspond to annual incomes of \$21,756 (100% FPL), \$43,512 (200% FPL), and \$65,268 (300% FPL).

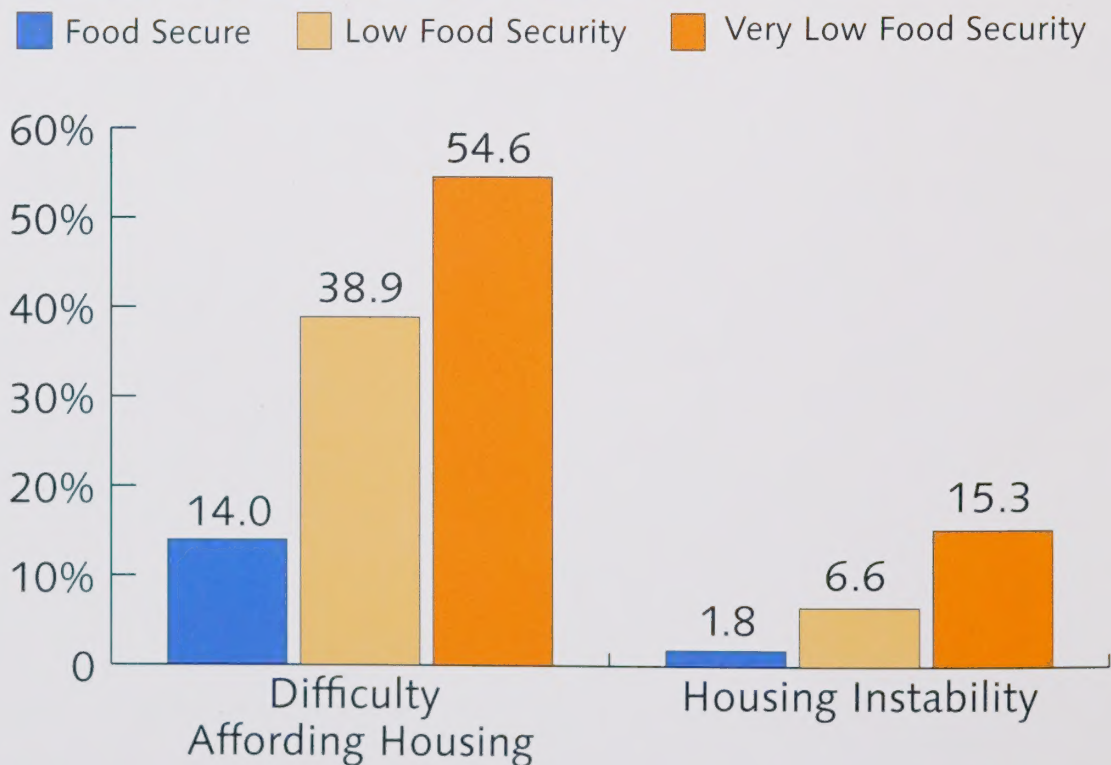
Competing Expenses

Other costs of living such as housing and health care compete with food for the limited dollars in a household budget. People and households that struggle to meet one of these expenses often struggle to meet others. The following findings show that a greater proportion of adults living in food insecure households reported difficulty affording housing and healthcare compared to those living in food secure households.

◆ Housing

- Difficulty affording housing is defined as delaying or being unable to pay rent or mortgage at some point in the past two years. Among adults with household incomes less than 300% FPL, difficulty affording housing was more prevalent among those living in households with low or very low food security compared to those living in food secure households (Figure 3).
- Housing instability, defined as a history of being homeless or not having their own place to live or sleep at some point in the previous two years, is another indicator of economic hardship. Housing instability was also most prevalent among adults living in households that experienced lower food security (Figure 3).

Figure 3: Difficulty Affording Housing and Housing Instability in the Past Two Years among Adults with Household Incomes <300% FPL^{\$} by Food Security Status, LACHS 2011



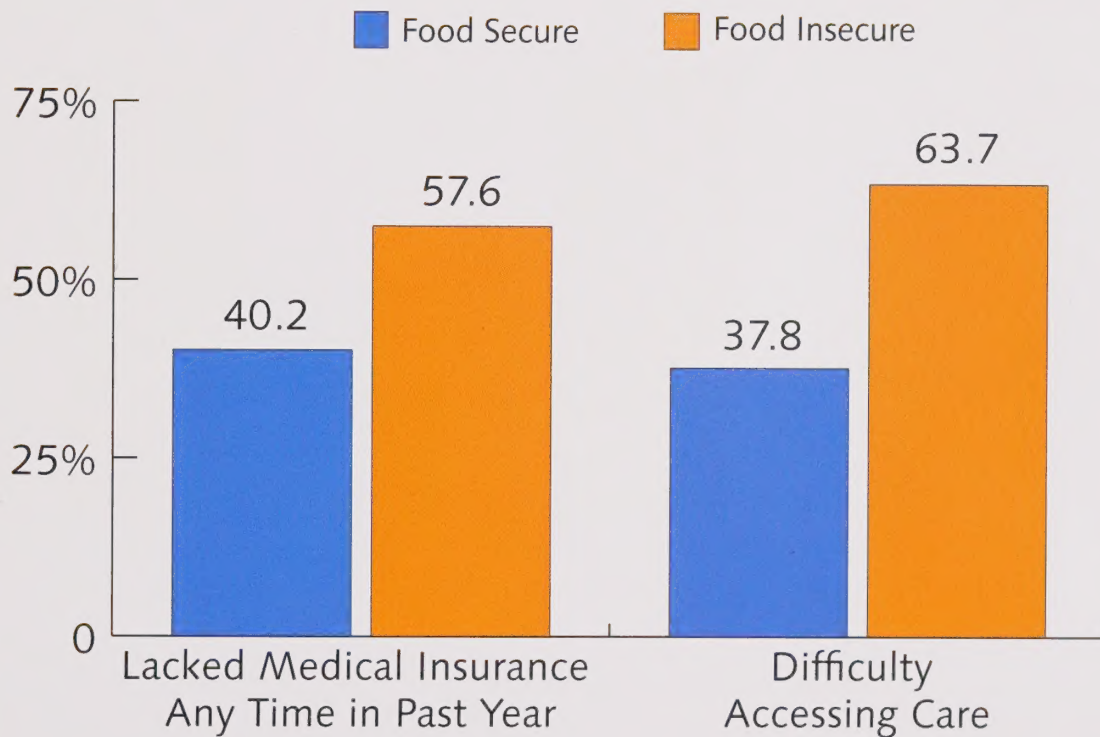
^{\$} Based on U.S. Census Bureau 2009 Federal Poverty Level (FPL) thresholds which for a family of four (2 adults, 2 dependents) correspond to annual incomes of \$21,756 (100% FPL), \$43,512 (200% FPL), and \$65,268 (300% FPL).

◆ Health Care

Among those struggling to meet their living expenses, accessing health care services is often difficult:

- Adults from food insecure households more frequently reported lacking medical insurance coverage at some point in the past year and difficulty accessing health care compared to those from food secure households (Figure 4).

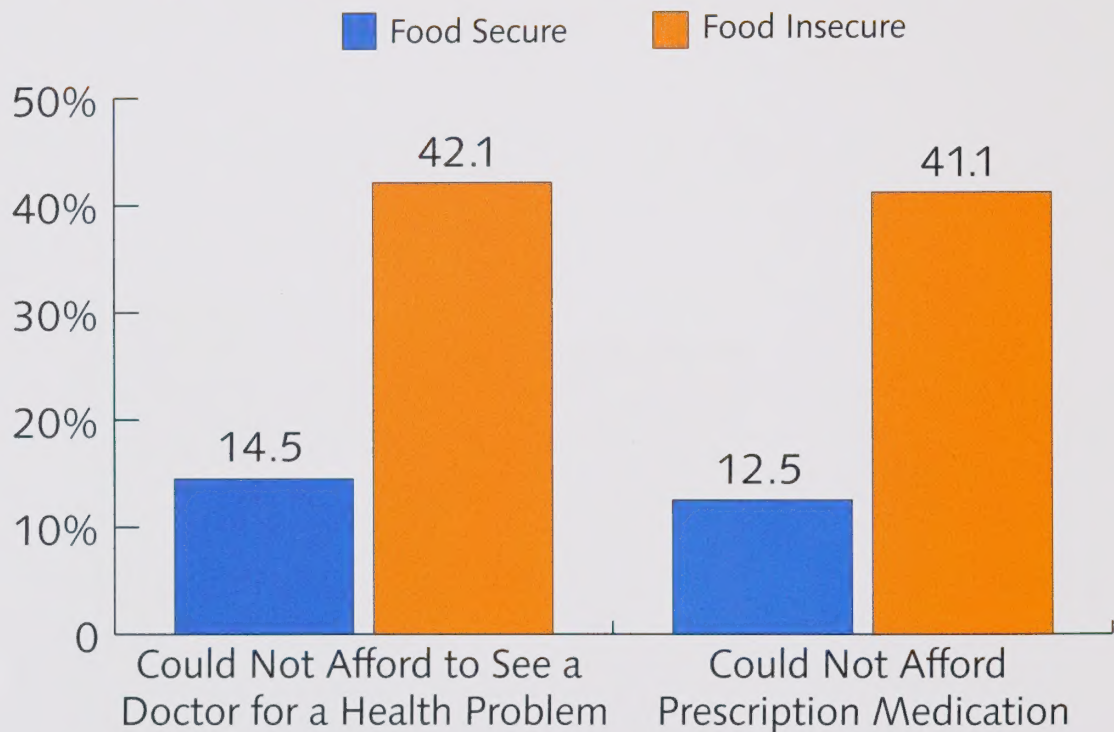
Figure 4: Barriers to Accessing Health Care among Adults with Household Incomes <300% FPL^{\$} by Household Food Security Status, LACHS 2011



^{\$} Based on U.S. Census Bureau 2009 Federal Poverty Level (FPL) thresholds which for a family of four (2 adults, 2 dependents) correspond to annual incomes of \$21,756 (100% FPL), \$43,512 (200% FPL), and \$65,268 (300% FPL).

- The proportion of those in food insecure households who could not afford to see a doctor for a health problem or were unable to afford a prescription medication in the past year was approximately three times that for adults living in food secure households (Figure 5).

Figure 5: Difficulty Affording Health Care in the Previous 12 Months among Adults with Household Incomes <300% FPL^{\$} by Household Food Security Status, LACHS 2011

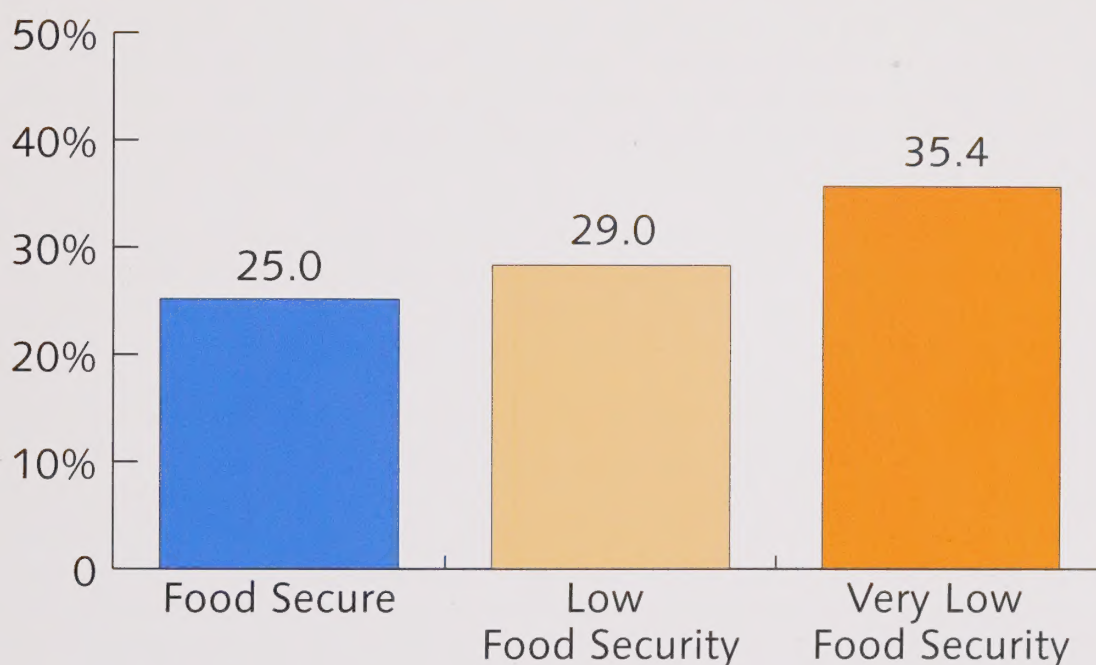


^{\$} Based on U.S. Census Bureau 2009 Federal Poverty Level (FPL) thresholds which for a family of four (2 adults, 2 dependents) correspond to annual incomes of \$21,756 (100% FPL), \$43,512 (200% FPL), and \$65,268 (300% FPL).

FOOD INSECURITY AND OBESITY

The prevalence of adult obesity in LA County has increased markedly from 13.6% in 1997 (the inaugural LACHS) to 23.6% in 2011.²⁴ Among households with incomes less than 300% FPL, there was a significantly higher prevalence of obesity among adults living in households with very low food security (35.4%) compared to those living in food secure households (25.0%) (Figure 6).

Figure 6: Prevalence of Obesity among Adults with Household Incomes <300% FPL[§] by Household Food Security Status, LACHS 2011



[§] Based on U.S. Census Bureau 2009 Federal Poverty Level (FPL) thresholds which for a family of four (2 adults, 2 dependents) correspond to annual incomes of \$21,756 (100% FPL), \$43,512 (200% FPL), and \$65,268 (300% FPL).

DISCUSSION

From 2002 to 2011, the prevalence of food insecurity among households with incomes less than 300% FPL in LA County increased from 21.8% to 30.6%, a relative increase of 40.4%. This increase in food insecurity among County households is consistent with increases observed at the national and state levels.^{1,2}

Food insecurity is strongly associated with other social determinants of health including income, education, employment, and housing stability. The most compelling association is that with household income. Since the other indicators determine or are determined by household income, it is not surprising that the best predictor of consistently having enough food is consistently having enough money to buy food.

Food assistance programs are designed to supplement income where incomes are insufficient to cover all expenses of living, including food, but many people who are eligible for these programs do not utilize them. Feeding America, the nation-wide network of food banks, found that among households utilizing their services, 72% of those not receiving Supplemental Nutrition Assistance Program (SNAP) may have been eligible.²⁵ In 2011, California ranked second to last among all states and the District of Columbia in SNAP participation among eligible residents.²⁶ Reasons for low participation in government food assistance programs include lack of awareness of benefits and eligibility, stigma, and income fluctuation that has people cycling in and out of eligibility.

Feeding America also found that many of their clientele use “emergency” food pantries on a routine basis to compensate for shortfalls in their food budgets.²⁷ When “emergency” assistance becomes the routine, it is clear that neither wages nor government assistance is succeeding in enabling people to meet their basic needs.

Food insecurity has been proposed as a major contributor to obesity and its health consequences. Lower income populations in LA County and throughout the United States are consistently observed to have a higher prevalence of obesity.¹⁵ Researchers believe that low income households, the same households more likely to be food insecure, rely on less expensive and less nutritious, higher-calorie foods to fill their diets and that these foods contribute to obesity.^{16,18} LACHS findings show that in our communities, as food security decreases, obesity increases; adults with very low food security have the highest prevalence of obesity. Obesity and food insecurity can be found in excessive numbers in many of the same communities, and those communities also have disproportionately high social and economic burden.²⁸

The social and economic environments in which people live ultimately determine their health and quality of life. Unfortunately, difficult economic realities that influence health and well-being often conspire to hinder fulfillment of needs as basic as adequate and nutritious food. This report reveals that 530,000 households in LA County lack affordable access to one of life’s most fundamental necessities. In our effort to reduce health disparities and create health equity, the Department of Public Health is working with our community partners to respond to this crisis and ensure that all people can fulfill the basic need for adequate nutrition.

WHAT'S BEING DONE IN LOS ANGELES COUNTY?

Los Angeles Regional Food Bank

Collaborating with 680 local agencies, the **Los Angeles Regional Food Bank** serves 280,500 people every month. Many of these people utilize food pantries and meal services several times a month, and nearly one quarter of those served are less than 18 years of age. Most of this food distribution is done by volunteers, and 60% of the collaborating agencies are faith-based organizations. Despite having the facilities and the person power to distribute food, the LA Regional Food Bank reports that 41% of its partner agencies reported not having enough food to meet the demand and 43% reported turning people away because they ran out of food.²⁹

Farmers' Markets

In 2012, the LA County Department of Public Health (DPH) and Department of Public Social Services (DPSS) partnered with Sustainable Economic Enterprises of Los Angeles (SEE-LA) to promote the use of welfare benefits at farmers' markets. In 2013, 39% of farmers' markets in LA County accepted EBT (SNAP) and 53% accepted WIC.³⁰ To incentivize use of these benefits at farmer's markets, a program called **Market Match** was initiated where those spending \$10 of their benefit's monies will receive \$10 worth of Market Match vouchers.

Summer Meals

In summer, many students lose access to nutritious meals provided by the National School Lunch Program (NSLP) and School Breakfast Program (SBP). The USDA recognized this gap and created the summer meal programs (**Summer Food Service Program** and **Seamless Summer Feeding Option**) enabling schools, cities, local and tribal government agencies, and community-based organizations to serve free, healthy meals to children ages 18 and under in low-income neighborhoods.^c In California, these programs are coordinated and administered by the **California Summer Meal Coalition**.

Campus Food Pantries

Following the economic downturn of 2008, UCLA students began The Food Closet, a campus food pantry, and 580 Café, housing a stocked refrigerator, coffee, sandwiches, and hot food, for fellow students in need of food.³¹ Since then, as academic fees and housing costs have continued to rise, other college campuses have followed the example and have established their own food pantries and cafes.³²

Gleaning

Collecting excess fresh foods for donation is known as **gleaning**. In 2014, food banks recovered and served over two billion pounds of food that would have otherwise gone into landfills.³³ **Food Forward**, a non-profit organization based in North Hollywood, has recovered millions of pounds of produce for distribution by non-profit agencies serving those in need. In 2010, the Los Angeles City Council passed the Surplus Food Ordinance which requires edible food from city facilities and events to be donated to local food pantries. Businesses, restaurants, food retailers or anyone hosting a catered event is encouraged to donate unspoiled food, produce and prepared meals, and may be eligible to claim their contributions as a tax deduction (see brochure **Food For Thought: Food Recycling Directory**). The Department of Public Health's Environmental Health program is currently implementing California State Assembly Bill 1990, which will register gleaning organizations and provide guidelines and best practices to gleaners, helping to ensure that the safest possible food is being collected and provided.

c. Low-income neighborhood is defined as a school attendance area or census block or tract where at least 50% of children are eligible for free or reduced-price lunch.

RECOMMENDATIONS

For a household to reliably feed itself, its budget must reliably cover all costs of living, including food. There are opportunities in place to relieve some of the pressure on a family's budget so that nutritious food (and subsequently, good health) is not sacrificed for rent, transportation, health care costs or other expenses. These other costs of living compete with food for a household's dollars, and as this report shows, where dollars are few, nutrition may be compromised. Strategies to improve food security in LA County include the following:

- Improve participation in food assistance programs. Policy makers can reduce the stress on low-income households' very limited budgets by improving access to nutrition assistance programs such as CalFresh, the Special Supplemental Nutrition Program for Women, Infants, and Children (WIC), school breakfasts and lunches, and child nutrition programs which provide a household with a budget that is dedicated to food. The UCLA Center for Health Policy Research recommends integrating enrollment in assistance programs for low-income families with the new health benefit exchange launched under the Affordable Care Act (ACA), coordinating health care coverage with other programs that promote health and well-being.¹
- Strengthen the California Work Opportunity and Responsibility to Kids (CalWORKs) program, which provides immediate, short-term financial aid and services to families in need, particularly where one parent is absent, unemployed or underemployed.
- Reduce food waste. The United States Department of Agriculture (USDA) through its US Food Waste Challenge and the Environmental Protection Agency (EPA) through its Feed Families, Not Landfills campaign are encouraging individuals and organizations to divert non-perishable and unspoiled perishable foods to local food donation centers where they can be provided to those in need rather than disposed of in a landfill.^{34,35}
- Avoid funding cuts for food assistance programs in times of economic stress. Food insecurity is very predictable. A recent paper from the USDA's Economic Research Service (ERS) found that the prevalence of food insecurity at the national level can be predicted from factors such as unemployment, inflation and the price of food.³⁶ It should not be surprising that the burden of food insecurity is strongly associated with prevailing economic trends. Because of this, government budgets for food assistance programs should be maintained or even increased, not reduced or eliminated, during economic downturns like that of 2008.
- Consider increasing the incomes of at-risk households through an increased minimum wage. A greater household income is better able to meet all its basic needs and cover all costs of living.



The Food Trust is a nationally recognized nonprofit dedicated to ensuring that everyone has access to affordable, nutritious food and information to make health decisions by improving food environments and teaching nutrition education in schools; working with corner store owners to increase healthy offerings and helping consumers make healthier choices; managing farmers' markets in communities that lack access to affordable produce; and encouraging grocery store development in underserved communities.

www.thefoodtrust.org

Feeding America's mission is to feed America's hungry through a nationwide network of member food banks and engage our country in the fight to end hunger. www.feedingamerica.org

United States Department of Agriculture (USDA) provides leadership on food, agriculture, natural resources, rural development, nutrition, and related issues based on sound public policy, the best available science, and efficient management. www.usda.gov

CalFresh is the state program which administers the federal government's Supplemental Nutrition Assistance Program (SNAP), formerly known as the Food Stamp Program. For most participating households, CalFresh benefits cover only part of their food budget and they must spend some of their own cash as well in order to buy enough food for a month. The program issues benefits through a monthly electronic benefit transfer (EBT). The EBT card can be used to buy most foods at many markets, food stores and participating farmers markets.

www.calfresh.ca.gov

The Women, Infants, and Children (WIC) Program is a federally-funded health and nutrition program for women who are pregnant, breastfeeding, or just had a baby; children under 5 years old; and families with low to medium income. WIC provides checks for buying healthy supplement foods, nutrition education, and help finding healthcare and other community services. www.wicworks.ca.gov

California Work Opportunity and Responsibility to Kids (CalWORKs) is a welfare program that gives cash aid and services to eligible California families. The program is operated locally by county welfare departments. If a family has little or no cash and needs housing, food, medical services, clothing or utilities, they may be eligible for immediate short-term help. Families that apply and qualify for ongoing assistance receive money each month to help pay for housing, food, and other necessary expenses. www.cdss.ca.gov/calworks

California Food Policy Advocates is a statewide nonprofit organization exclusively focused on food policy with a mission to improve the health and well-being of low-income Californians by increasing their access to nutritious and affordable food. www.cfpa.net

The Los Angeles Regional Food Bank's mission is to mobilize resources to fight hunger in the community with a vision that no one goes hungry in LA County. They source, acquire, and distribute food and other products to needy people with the help of partnering agencies and Food Bank programs; conduct hunger education and awareness campaigns; and advocate for public policies that alleviate hunger. www.lafoodbank.org

The Los Angeles County Department of Public Social Services (DPSS) serves an ethnically and culturally diverse community through programs designed to both alleviate hardship and promote health, personal responsibility, and economic independence by providing benefits and services for low-income residents including food benefits for families and individuals, in-home services for elderly and disabled, temporary financial assistance and employment services for families and individuals, and financial assistance and advocacy for federal disability benefits for disabled individuals. <https://dpss.lacounty.gov>

The Los Angeles Food Policy Council (LAFPC), a project of Community Partners, is a collective impact initiative, working to make Southern California a Good Food region for everyone – where food is healthy, affordable, fair and sustainable. Through policy creation and cooperative relationships, their aims are to connect environmental sustainability and local agriculture with efforts to expand access to healthy food in underserved communities. www.goodfoodla.org

REFERENCES

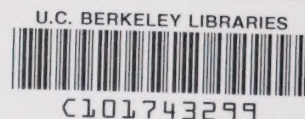
1. Chaparro MP et al. Nearly Four Million Californians Are Food Insecure. Kominski GF, ed. Health Policy Brief. University of California, Los Angeles: UCLA Center for Health Policy Research. June 2012. Available from <http://healthpolicy.ucla.edu/publications/Documents/PDF/FoodPBrevised7-11-12.pdf>.
2. Coleman-Jensen A, Nord M, Andrews M, Carlson S. Household Food Security in the United States in 2011. Economic Research Report: Economic Research Service. September 2012. Available from <http://www.ers.usda.gov/publications/err-economic-research-report/err141.aspx>.
3. Coleman-Jensen A, Gregory C, Singh A. Household Food Security in the United States in 2013. Economic Research Report: Economic Research Service. September 2014. Available from <http://www.ers.usda.gov/publications/err-economic-research-report/err173.aspx>.
4. Senterfitt JW, Long A, Shih M, Teutsch SM. How Social and Economic Factors Affect Health. Social Determinants of Health. Los Angeles County Department of Public Health. January 2013. Available from http://publichealth.lacounty.gov/epi/docs/SocialD_Final_Web.pdf.
5. Housing and Health in Los Angeles County. Social Determinants of Health. Office of Health Assessment and Epidemiology. Los Angeles County Department of Public Health. February 2015. Available from http://publichealth.lacounty.gov/ha/reports/LAHealthBrief2011/HousingHealth/SD_Housing_Fs.pdf.
6. Anderson, SA. Core indicators of nutritional state for difficult-to-sample populations. *J Nutr.* 1990.; 120 Suppl 11: 1559-600.
7. Coleman-Jensen A, Gregory C. Definitions of Food Security. 2014. Available from <http://www.ers.usda.gov/topics/food-nutrition-assistance/food-security-in-the-us/definitions-of-food-security.aspx#.VDLFy1fg7lx>.
8. Cook JT et al. Food insecurity is associated with adverse health outcomes among human infants and toddlers. *J Nutr.* 2004;134: 1432-8.
9. Seligman HK, Laraia BA, Kushel MB. Food insecurity is associated with chronic disease among low-income NHANES participants. *J Nutr.* 2010; 140: 304-10.
10. Alaimo K, Olson CM, Frongillo EA, Jr. Food insufficiency and American school-aged children's cognitive, academic, and psychosocial development. *Pediatrics.* 2001; 108: 44-53.
11. Alaimo K, Olson CM, Frongillo EA. Family Food Insufficiency, but Not Low Family Income, Is Positively Associated with Dysthymia and Suicide Symptoms in Adolescents. *The Journal of Nutrition.* 2002; 132: 719-725.
12. Laraia BA. Food Insecurity and Chronic Disease. *Advances in Nutrition: An International Review Journal.* 2013; 4: 203-212.
13. Fitzgerald N, Hromi-Fiedler A, Segura-Perez S, Perez-Escamilla R. Food insecurity is related to increased risk of type 2 diabetes among Latinas. *Ethn Dis.* 2011; 21: 328-34.
14. Berkowitz SA, Seligman HK, Choudhry NK. Treat or eat: food insecurity, cost-related medication underuse, and unmet needs. *Am J Med.* 2014; 127: 303-310.e3.
15. Dinour LM, Bergen D, Yeh M-C. The Food Insecurity–Obesity Paradox: A Review of the Literature and the Role Food Stamps May Play. *Journal of the American Dietetic Association.* 2007; 107: 1952-1961.
16. Seligman HK, Schillinger D. Hunger and socioeconomic disparities in chronic disease. *N Engl J Med.* 2010; 363: 6-9.
17. Leung CW, Williams DR, Villamor E. Very low food security predicts obesity predominantly in California Hispanic men and women. *Public Health Nutr.* 2012; 15: 2228-36.
18. Dietz WH. Does Hunger Cause Obesity? *Pediatrics.* 1995; 95: 766-767.
19. Link MW et al. Reaching the U.S. Cell Phone Generation: Comparison of Cell Phone Survey Results with an Ongoing Landline Telephone Survey. *Public Opinion Quarterly.* 2007; 71: 814-839.
20. Pierannunzi C et al. Methodologic Changes in the Behavioral Risk Factor Surveillance System in 2011 and Potential Effects on Prevalence Estimates. *Morbidity and Mortality Weekly Report.* 2012; 61: 4. Available from <http://www.cdc.gov/mmwr/preview/mmwrhtml/mm6122a3.htm>.
21. 2011 Los Angeles County Health Survey (LACHS) Methodology Changes: FAQs. Office of Health Assessment and Epidemiology. Los Angeles County Department of Public Health. 2011. Available from http://www.publichealth.lacounty.gov/ha/docs/2011LACHS/LACHS_MethodologyFs.pdf.
22. Wimer C et al. A Portrait of Poverty within California Counties and Demographic Groups. The California Poverty Measure: Stanford University. 2013. Available from http://web.stanford.edu/group/scspi/poverty/cpm/CPMBrief_CPI.pdf.

23. Blumberg SJ, Bialostosky K, Hamilton WL, Briefel RR. The effectiveness of a short form of the Household Food Security Scale. *American Journal of Public Health*. 1999; 89: 1231-1234.
24. Los Angeles County Department of Public Health, Office of Health Assessment and Epidemiology, Trends in Obesity: Adult Obesity Continues to Rise, September 2012.
25. Weinfield NS et al. Hunger in America 2014: National Report. Westat and the Urban Institute. August 2014. Available from <http://www.feedingamerica.org/hunger-in-america/our-research/hunger-in-america/>.
26. Cunyningham KE. Reaching Those in Need: State Supplemental Nutrition Assistance Program Participation Rates in 2011. Mathematica Policy Research Food and Nutrition Service. February 2014. Available from <http://www.fns.usda.gov/reaching-those-need-state-supplemental-nutrition-assistance-program-participation-rates-2011>.
27. Echevarria S et al. Food Banks: Hunger's New Staple. Chicago, IL: Feeding America. Available from <http://www.feedingamerica.org/hunger-in-america/our-research/hungers-new-staple/>.
28. Obesity and Related Mortality in Los Angeles County: A Cities and Community Health Report. Office of Health Assessment and Epidemiology. Los Angeles County Department of Public Health. September 2011. Available from http://publichealth.lacounty.gov/ha/reports/habriefs/2007/Obese_Cities/Obesity_2011Fs.pdf.
29. #HUNGERFACTS: A Report by the Los Angeles Regional Food Bank. 2015. Available from http://www.lafoodbank.org/source/Editorfile/LAfoodbank_report_final_web.pdf.
30. Los Angeles Food System Snapshot 2013; Los Angeles Food Policy Council; October 2013.
31. Rivera C. Hope for hungry students at UCLA. Los Angeles Times. June 14, 2010. Available from <http://articles.latimes.com/2010/jun/14/local/la-me-ucla-food-20100614>.
32. Guzman-Lopez A. As California university costs rise, college students tap food pantries. Education Desk: 89.3 KPCC. March 9, 2015. Available from <http://www.scpr.org/news/2015/03/09/50221/as-california-university-costs-rise-college-studen/>.
33. Reducing Food Waste. Feeding America. Available from <http://www.feedingamerica.org/our-response/how-we-work/securing-meals/reducing-food-waste.html>.
34. U.S. Food Waste Challenge. USDA. Available from <http://www.usda.gov/oce/foodwaste/>.
35. Feed Families, Not Landfills. EPA. 2014. Available from <http://www.epa.gov/waste/conservation/foodwaste/fd-donate.htm>.
36. Nord M, Coleman-Jensen A, Gregory C. Prevalence of U.S. Food Insecurity is Related to Changes in Unemployment, Inflation, and the Price of Food. Economic Research Report: Economic Research Service. June 2014. Available from <http://www.ers.usda.gov/publications/err-economic-research-report/err167.aspx>.



COUNTY OF LOS ANGELES
Public Health

Office of Health Assessment & Epidemiology



Presorted
Standard
U.S. Postage
PAID
Orange, CA
Permit No. 193

Los Angeles County
Department of Public Health
313 N Figueroa Street, Room 127
Los Angeles, CA 90012
213.240.7785

LA County Board of Supervisors
Hilda L. Solis, First District
Mark Ridley-Thomas, Second District
Sheila Kuehl, Third District
Don Knabe, Fourth District
Michael D. Antonovich, Fifth District

*****AUTO**MIXED ADC 901

Ben Burch
University Of California
Igs Library Uc Berkeley
109 Moses Hall Mc2370
Berkeley, CA 94720-2370



Los Angeles County Department of Public Health

Cynthia A. Harding, MPH
Interim Director

Jeffrey Gunzenhauser, MD, MPH
Interim Health Officer

Office of Health Assessment and Epidemiology

Margaret Shih, MD, PhD, Director
Amy S. Lightstone, MPH, MA, Interim Chief, Health Assessment Unit
Susie Baldwin, MD, MPH, former Chief, Health Assessment Unit

Health Assessment Unit:

Gigi Mathew, DrPH
Yan Cui, MD, PhD
Yajun Du, MS
Jerome Blake, MPH
Douglas Morier, PhD, MPH

Division of Chronic Disease and Injury Prevention:

Paul Simon, MD, MPH, Director
Steve Baldwin, MS, RD, Director, Nutrition and Physical Activity Program

Lead author:

Douglas Morier, PhD, MPH

Acknowledgments:

We thank **Matthew Sharp**, Senior Policy Director, LA2050, Goldhirsh Foundation, and **Michael Flood**, President/CEO, Los Angeles Regional Food Bank for their assistance.

NACCHO

National Association of County & City Health Officials

2012 Model Practice Award
Los Angeles County Health Survey



Mixed Sources

Product group from well-managed
forests and other controlled sources
www.fsc.org Cert no. SGS-COC-004090
© 1996 Forest Stewardship Council

Printed by a Forest Stewardship Council certified printer on paper
certified by the Forest Stewardship Council to consist of 50% total
recycled content, of which 25% is Post Consumer recycled.